



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/730,816

12/08/2003

Peter Kan

MBM1360

4225

28213

7590

08/22/2005

DLA PIPER RUDNICK GRAY CARY US, LLP  
4365 EXECUTIVE DRIVE  
SUITE 1100  
SAN DIEGO, CA 92121-2133

EXAMINER

DUNWIDDIE, MEGHAN K

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/730,816	<b>Applicant(s)</b> KAN, PETER	
	<b>Examiner</b> Meghan K. Dunwiddie	<b>Art Unit</b> 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-18 is/are rejected.
- 7) ☐ Claim(s) 5 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

### **DETAILED ACTION**

This Office Action is a Non-Final Rejection in response to the application filed on December 8, 2003 by **Kan**.

#### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on March 5, 2003. It is noted, however, that applicant has not filed a certified copy of the 2,420,939 application as required by 35 U.S.C. 119(b).

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 6 recites the limitation, "the horizontal reflector is linear, tilted, and curved". It is unclear to the examiner whether the reflector is any one of linear, tilted, and curved or all three at once. The examiner is interpreting Claim 6 as stating the horizontal reflector is linear, titled, and curved, all at once.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-4, 11, and 13 are rejected under 35 U.S.C. 102(a) as being anticipated by **Yao** (US 2003/0095407).

7. In reference to Claim 1, **Yao** shows a system for manipulating illumination created by an array of light emitting devices [Figure 2a: (2)], said system comprising:

- A plurality of light emitting devices spatially arranged in an array [See page 1 paragraph [0015] line 3 in reference to Figure 2a: (21)], said array separated into one or more sections, wherein each section of the array includes light emitting devices capable of creating illumination having a predetermined wavelength range;
- A macroscopic optical system [Figure 2a: (23)] adjacent to the plurality of light emitting devices [Figure 2a: (21)],
- Said macroscopic optical system [Figure 2a: (23)] enabling redirection of the illumination created by the plurality of light emitting devices [Figure 2a: (21)];
- And a microscopic optical system for diffusing the illumination [Figure 2a: (22)] created by the plurality of light emitting devices [Figure 2a: (21)] subsequent to

Art Unit: 2875

the redirection by the macroscopic optical system [Figure 2a: (23)], thereby providing a desired level of blending of the predetermined wavelengths ranges.

8. In reference to Claim 2, **Yao** shows:

- The macroscopic optical system includes at least one horizontal reflector [Figure 2a: (23)].

9. In reference to Claim 3, **Yao** show:

- The horizontal reflector is planar [Figure 2a: (23)].

10. In reference to Claim 4, **Yao** show:

- The horizontal reflector [Figure 2a: (23)] has a top [Figure 2a: (235)] and a bottom [Figure 2a: (231)] and at least one slot [Figure 2a: (232 and 233)] is formed in the top [Figure 2a: (235)], wherein the slot [Figure 2a: (232 and 233)] is formed adjacent to one of the light emitting devices [Figure 2a: (21)].

11. In reference to Claim 11, **Yao** shows:

- The microscopic optical system is a diffuser that diffuses the illumination in a horizontal direction [Figure 2a: (22)].

12. In reference to Claim 13, **Yao** shows:

- The microscopic optical system is a diffuser that diffuses the illumination evenly in all directions [Figure 2a: (22)].

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Yao** (US 2003/0095407) in view of **Lichon, Jr.** (US 6234643).

15. Regarding Claims 7-10, **Yao** shows:

- The macroscopic optical system includes at least one horizontal reflector [Figure 2a: (23)].

16. **Yao** does not show:

- The horizontal reflector is a parabolic shape.
- The macroscopic system includes at least one vertical trough reflector.
- The vertical trough reflector is a parabolic shape.
- The macroscopic optical system includes at least one vertical parabolic trough reflector and at least one linear tilted parabolic reflector.

17. **Lichon, Jr.** teaches:

- The horizontal reflector is a parabolic shape (See Claim 2 in reference to Figures 11 and 12).

Art Unit: 2875

- The macroscopic system includes at least one vertical trough reflector, the vertical trough reflector is a parabolic shape (See Claim 2 in reference to Figures 11 and 12).
- The macroscopic optical system includes at least one vertical parabolic trough reflector and at least one linear tilted parabolic reflector (See Claim 2 in reference to Figures 11 and 12).

18. It would have been obvious for one of ordinary skill in the art, at the time of the invention to use both a vertical parabolic trough reflector and a linear tilted parabolic reflector taught by **Lichon, Jr.** within the macroscopic system of **Yao** for the purpose and advantage of redirecting the illumination created by the point source light emitting devices in one or more desired directions.

19. Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Yao** (US 2003/0095407) in view of **Fiene** (US 6260981).

20. Regarding Claims 12 and 14, **Yao** shows:

- The microscopic optical system [Figure 2a: (22)].

21. **Yao** does not show:

- Selected from the group comprising a holographic diffuser having a linear or elliptical distribution, a mechanically produced plastic diffuser and a lenticular array.
- Selected from the group comprising a holographic diffuser having a circular distribution, a frosted or sandblasted glass diffuser, a plastic diffuser and a lenslet array.

22. **Fiene** teaches:

- Selected from the group comprising a holographic diffuser having a linear or elliptical distribution, a mechanically produced plastic diffuser and a lenticular array [See column 4 line 66-column 5 line 1].
- Selected from the group comprising a holographic diffuser having a circular distribution, a frosted or sandblasted glass diffuser, a plastic diffuser and a lenslet array [See column 4 line 66-column 5 line 1].

23. It would have been obvious for one of ordinary skill in the art, at the time of the invention to use a plastic diffuser taught by **Fiene** as the microscopic optical system shown in **Yao** for the purpose and advantage of enabling the reduction of the appearance of high brightness or illumination "hot spots" which can result from the illumination of an area using point light sources like light emitting devices.



Art Unit: 2875

24. As to Claim 15, it is a method claim corresponding to an apparatus Claim 1 and it is therefore rejected for the similar reasons set forth in the rejection of Claim 1, above.

In addition to the reasons set forth in the rejection of Claim 1, **Lichon, Jr.** teaches:

- Optics formed in a grid pattern [See Figures 1, 2, and 6].

25. As to Claim 16, it is a method claim corresponding to an apparatus Claim 1 and it is therefore rejected for the similar reasons set forth in the rejection of Claim 1, above.

26. As to Claim 17, it is a method claim corresponding to an apparatus Claims 1 and 10 and it is therefore rejected for the similar reasons set forth in the rejections of Claims 1 and 10, above.

27. As to Claim 18, it is a method claim corresponding to an apparatus Claims 1 and 4 and it is therefore rejected for the similar reasons set forth in the rejections of Claims 1 and 4, above.

***Allowable Subject Matter***

28. Claims 5 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

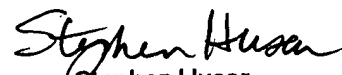
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meghan K. Dunwiddie whose telephone number is (571) 272-8543. The examiner can normally be reached on Monday through Friday 8 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MKD

  
Stephen Husar  
Primary Examiner